

Seed production technology in Brinjal

Dr. Praveen Kumar

Asst. Prof & Head

GPB, MSSSoA, CUTM

- Often cross pollinated crop
- Flower opens mainly in morning
- Anther dehiscence occurs 15-20 min. after flower opening
- Stigma receptivity ranges from a day prior to flower opening to 4 days after opening.
- It produces 4 types of flowers with different style length
 - ❖ Long style, short style, medium style and pseudo short style
 - ❖ For seed production and better yield, the long and medium style is desirable.
 - ❖ To increase the production of long and medium style application of more nitrogen or spraying of growth regulators during pre-flowering and flowering stages may be followed.

Nursery

- Sow seeds in raised nursery bed of 20 cm height, in rows of 5 cm gap
- and covered with sand.
- 8-10 nursery beds sufficient to transplant one acre
- Apply 2 kg of DAP 10 days before pulling out of seedling

Transplanting

- Seedlings transplanted 30-35 DAS (12-15 cm height)
- **Spacing** - 75 x 60 cm for non-spreading type
90 x 60 cm for spreading type varieties
- Hybrids** - female parent - 90 x 60 cm
male parent - 60 x 45 cm

Roguing

- Based on plant characters, leaf, branching and spreading characters & also based on fruit size, shape and color.
- Phomopsis blight, leaf spot and little leaf virus disease affected plants should be removed

Pest & disease management

- Fruit borer, shoot borer, beetles, aphids, mealy bug and jassids – spray nuvacron
- Red spider mite – spray kelthane
- Damping off – fungicide
- Little leaf - systemic insecticides
- Powdery mildew, leaf spot and anthrocnose - benlate

Harvesting and processing

- Harvest fully ripe (when the fruits turn into yellow colour)
- Harvested fruits graded for true to type and off type
- Fruit borer infested fruits are discarded

Seed extraction

- All the methods used for tomato are suitable for extraction
- But for brinjal water is added @ 1 lit./kg of fruit
- Pedicel portion of the fruits is cut and removed (since it contain no seeds) and the fruit is cut in to small piece before extraction

Seed extraction

- Graded fruits cut in 2-3 pieces & crushed manually and then allow it for fermentation for 1-2 days
- Floating pulp portions removed and seeds settled at the bottom - collected and washed with water
- Seeds along with equal volume of water is treated with con. HCL @ 3-5 ml/kg of seed allow it for 10-15 min. with frequent stirring
- Treated seeds - washed with water for 3-4 times.
- Then seeds dried under shade for 2-3 days & sun drying for 1-2 days
- Reduce seed MC 8% & grade with BSS 12 sieve
- Processed seeds treated with fungicides or Halogen mixture @ 5g/kg of seed

Factors	Foundation	Certified
➤ Off types – Variety	0.1%	0.2%
Hybrid	0.01%	0.05%
➤ Designated diseased plants	0.1%	0.5%
➤ The designated diseases in brinjal are phomopsis blight caused by <i>Phomopsis vexans</i> and little leaf caused by Datura virus -2		

- **Seed standards (Variety & Hybrid)**

Factors	Foundation & Certified
➤ Pure seed	98%
➤ Inert matter	2%
➤ Other crop seed	None
➤ Weed seed	None
➤ Germination	70%
➤ Moisture content	8%
➤ For VP Container	6%